

Greater sage-grouse

The Greater sage-grouse (*Centrocercus urophasianus*) occurs across 11 Western states ([Sage-Grouse Range – 2000 map](#)). In 1946, it was separated into two different subspecies by John Aldrich, based on coloration differences in 11 museum specimens. The "western subspecies" (*C. urophasianus phaios*) included the greater sage-grouse populations in Washington State, central Oregon, and northeastern California (Aldrich 1946). The "eastern subspecies" (*C. urophasianus urophasianus*) encompassed the remainder of the greater sage-grouse range. Populations in the Sierra Nevada range of California and northwestern Nevada were identified as an intermediate between the eastern and western subspecies (Aldrich 1963).

A survey of the greater-sage grouse involving 332 samples from 16 populations in California, Nevada, Oregon and Washington found no genetic evidence supporting the subspecies designation (Benedict *et al.* 2003). Conversations with State wildlife biologists familiar with sage-grouse did not reveal any behavioral or ecological differences between the subspecies. The American Ornithologists Union (AOU) acknowledged that the subspecies differentiation within sage-grouse should be re-examined, but due to time constraints, that review may be several years in the future. In 2002, based on the genetic and ecological data available, the U.S. Fish and Wildlife Service determined that the western subspecies was not a valid subspecies, and we would consider it a single species across its range.

When the Gunnison sage-grouse was separated from the Greater sage-grouse (see below), there was extensive discussion regarding the species common name. While alternatives were discussed (e.g. northern sage-grouse), the official name is agreed upon by the AOU was the Greater sage-grouse (AOU 2000). However, many individuals continue to use alternative common names.

Mono Basin/Lyon populations

Supporting Aldrich's 1963 morphological analyses, the genetic survey by Benedict *et al.* (2003) found that the population of greater sage-grouse straddling the southwestern Nevada and eastern California border had likely been isolated from the remainder of the species range based on the abundance of unique haplotypes found in this population. Additional genetic surveys are being completed for this population. Further morphological and behavioral studies will also be necessary to determine if this population constitutes a subspecies of the greater sage-grouse, or even an entirely different species.

Gunnison sage-grouse

In the late 1970's wings collected in the Gunnison Basin of Colorado (west central portion of the state) by the Colorado Division of Wildlife for hunting information were observed to be significantly smaller than sage-grouse wings collected from northwestern areas in the State. Research conducted in the 1980's and 1990's found that the Gunnison Basin birds differed significantly from all other sage-grouse in their

plumage, morphology, behavior and genetic makeup. Therefore, in 2000, sage-grouse from extant populations in southwestern Colorado and southeastern Utah were designated as a separate species (*Centrocercus minimus*) (Young *et al.* 2000). Records of sage-grouse and sagebrush (*Artemisia* spp.) habitat also support historic ranges of the Gunnison sage-grouse in northeastern Arizona and northwestern New Mexico. In December of 2000, shortly after the species designation and due to threats to the species, including low population numbers, the Gunnison sage-grouse was formally designated as a candidate for listing under the Endangered Species Act of 1973, as amended.

Literature Cited

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